

WHAT IS CLAIMED IS:

1. A derotation mirror system within a common-optical-path panoramic stabilized periscope for receiving an input image in a direction perpendicular to a virtual reference surface, the derotation system comprising:

5 a first surface-reflecting mirror positioned above the virtual reference surface at a first included angle from the virtual reference surface;

a second surface-reflecting mirror perpendicular to the virtual reference surface, wherein the second surface-reflecting mirror and the virtual reference surface intersect along a first straight line; and

10 a third surface-reflecting mirror positioned below the virtual reference surface at a second included angle from the virtual reference surface, wherein an edge of the first surface-reflecting mirror, the virtual reference surface and an edge of the third surface-reflecting mirror intersect along a second straight line, and the input image is converted to an output image after several reflections via the first surface-reflecting mirror, the second surface-reflecting mirror and the third surface-reflecting mirror.

2. The derotation system of claim 1, wherein the first included angle and the second included angle are identical.

3. The derotation system of claim 1, wherein a value of the first and the second included angle is between about 45° and 90°.

20 4. The derotation system of claim 1, wherein the derotation system is capable of rotating about a Z-axis.

5. The derotation system of claim 4, wherein the derotation system is capable of effecting a reverse half-angle compensation for slew angular rotation.

6. The derotation system of claim 4, wherein the derotation system is capable of effecting a reverse half-angle compensation for platform angular rotation.

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